HIRING AND FIRING: ITS ECONOMIC WASTE AND HOW TO AVOID IT[1]

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It must be obvious beyond argument that every unnecessary dismissal of an employe, must mean a definite economic waste to the employer, to the employe, and to society. It seems obvious also that the magnitude of this waste and its influence on the industrial situation is by no means clearly understood, otherwise this important phase of the management of men would have received adequate attention before now. Many managers of large businesses, to be sure, have recognized the existence of this problem and have established specialized employment departments to deal with it. They know from experience that it does not pay to hire and fire employes haphazardly; they realize that it costs money to train a new employe, even a skilled workman, in the special practices that are peculiar to a given concern, and that upon his dismissal, save on the ground of no further need, a similar expenditure must be incurred for the training of another new employe, which expenditure only good reason for the dismissal of the previous employe can justify. In only a few instances, however, have employment departments been placed in charge of men of experience and capacity who are competent to deal adequately with the many and often perplexing phases of the employment situation, while still more infrequently have these employment managers been entrusted with the equally, if not even more important duty of continuing their personal interest in the men and women while they are retained in the employment, in order that they may be assured of proper training and fair treatment and may not be discharged without good cause. Without this later function, which he must share with the superintendent or supervising foreman in harmonious coöperation, no employment manager will

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be able to bring about a satisfactory solution of the hiring and firing problem.

In order to place this subject concretely before employers so that they may recognize more fully the importance of this phase of economical management, I have collected and analyzed various employment statistics and studied various employment conditions in an endeavor to draw the pertinent lesson and to find the obvious remedy. My observations were concerned especially with large, medium size and small metal manufacturing concerns throughout the United States. A similar investigation in factories in Austria, England, France and Germany during the summer of 1913 has proved, however, that the problem under discussion is of international scope.

Method of Investigation

The investigation endeavored first to trace the curve of engagements and discharges in the various concerns during the period of one year and then to find out and study the reasons for the discharges of employes. All data were obtained for the year 1912, which may be considered to have been an industrially normal year. The investigation covered the employment and discharge of all classes of employes at the various factories except those belonging to the commercial and engineering organizations and to the general executive staff. A record of those who had entered the service of the concerns for the first time and of those who had been working in the same place at a previous period was also obtained, for it was assumed that reëmployment would usually cause a smaller expense than the employment of entirely new people unfamiliar with the conditions prevailing at a given factory.

The figures herewith presented cover the aggregate statistics of twelve factories located in six different states, some employing only male and others employing female as well as male operatives. The great variety of mechanical manufacture in this group of factories ranges from the production of big steam engines, many forms of electrical apparatus and high-class automobiles to that of fine tools and instruments, requiring labor of the highest skill as well as that of the common kind. The smallest of these factories carries normally less than 300, the largest more than 10,000 employes on its payroll. While it would add interest and value to

this discussion to analyze separately the statistics of the various concerns in question, it would be obviously wrong to divulge individual figures which were obtained confidentially. It should be said, however, that these factories can be classed as average or even a little above the average in economical conduct and in respect to such influencing factors as availability of labor, rate of wages and controlling legislative conditions.

A word of explanation is also in order relative to the mathematics of the arguments herein presented. The rate of engagements and of separation from service should be considered separately for each week, and even for each day, in order to arrive at mathematically correct conclusions, since changes in the labor force during a year follow neither a straight line nor any well defined curve, but vary usually according to a most grotesque zigzag line. On the other hand, inasmuch as various factors in the calculation are in themselves of an assumptive character and necessarily introduce into the problem an element of uncertainty, the short-cut methods of calculation herein used will be found to give results sufficiently accurate for the purpose. It has been the aim to give conservative values to all assumptions, and these are briefly explained so that anyone with different judgment may readily substitute his assumptions and carry the calculation through on that basis. Most industrial managers, however, I feel confident, will subscribe to the premises herein stated.

In the twelve factories above alluded to, statistics show, 72.8 per cent of the employes engaged during the year had not been employed in these factories before, while 27.2 per cent had worked in the same factories during one or several previous periods. As a general proposition these percentages will be found to apply fairly well to any normal employment in the mechanical industries.

This group of factories gave employment to 37,274 employes at the beginning and 43,971 at the end of the year 1912. *The net increase in the working force as between January 1 and December 31, amounted therefore to 6,697 employes, while during the same period 42,571 people had been hired and, accordingly, 35,874 had dropped out of the employment for whatsoever reason. In other words, about six and one-third times as many people had to be engaged during the year as constituted the permanent increase of the force at the end of that period.*

Unusual Conditions of Employment

Several reasons might be given in explanation of this condition. It might be stated that the labor market in a given locality was in part responsible for the situation; it might be claimed that in a particular plant a temporary piece of work had to be done, such as the building of a structure or the digging of a foundation, for which labor in excess of the normal quota was temporarily needed, to be dispensed with again when the special work was finished. Unusual conditions of employment might have been the result of a highly fluctuating productive situation, brought about in turn by a largely varying commercial demand on the factories during the four seasons of the year. Above all else, sight must not be lost of the fact that a certain amount of separation from the service is unavoidable and must be reckoned with, such as results from death and prolonged sickness of employes and from the necessary discharge of some and the voluntary resignation of others in the working force.

The important fact, however, stands out that 42,571 people had to be engaged during the year in order to increase the working force by only 6,697.

Theoretically, only as many people ought to have been hired as were needed permanently to increase the force. Practically, certain allowances must be made in order to view the problem in its correct light. These allowances must cover:

(a) the replacement of employes who die;
(b) the replacement of employes on prolonged sick leave for whom others must be substituted temporarily;
(c) the replacement of employes who, although they had been selected for their positions with good judgment, are found to be unsuited to the work or unfit on account of personal characteristics, or who leave of their own accord because they do not find the work congenial, the climatic conditions acceptable, or who for other reasons remove from the locality;
(d) the engagement of extra employes required for short periods, either on account of a temporary piece of construction work or usually on account of the high peaks of a fluctuating production; and

(e) the recognized fact that no employment department can be run on a 100 per cent efficiency basis.

The substitution of fair numerical values for these items will indicate the probable number of necessary engagements that will have to be made in any event, even though the numerical strength of an employment is merely maintained and the now prevailing weaknesses in the employment situation are removed.

It may be assumed that among all employes annually
One per cent die;
Four per cent are sick for sufficiently long periods to necessitate their replacement temporarily or permanently;
Eight per cent withdraw from service for unforeseen or unavoidable reasons, or are discharged for justifiable causes;
Eight per cent are temporarily needed on account of normal fluctuation of production; and
Eighty per cent constitutes a readily attainable efficiency of an employment department.

These figures find their support in the following considerations:

Mortality tables give the death rate of men and women in general employment in accordance with the age of such persons. The average age of employes in the factories under consideration was therefore ascertained and found to be thirty-one and one-half years for male and twenty-three years for female employes. For these ages mortality tables place the death rate of male employes at eight and five-tenths and of female employes at seven and ninety-five hundredths in each thousand. On the other hand, the experience of several mutual benefit associations in factories, some extending over a period of ten years, revealed that about seven in every thousand members had died annually. These statistics, therefore, justify the assumption that death removes annually not more than 1 per cent of factory employes.

Number Incapacitated by Sickness and Accident

The average number of persons in every thousand who are annually incapacitated by sickness or accident from work for definite periods, cannot readily be learned from statistics, unless recourse is taken to experiences in the German Empire, and then

other factors of the situation will also have to be taken into account. Meager statistics of mutual benefit associations in factories and in particular the judgment of industrial managers and assistants must therefore serve as a basis for any assumption of this character. In this connection it must also be recognized that it is the prevailing custom in most factories to carry on sick leave for periods of many weeks and often several months those of whose sickness the management has definite knowledge, and not to replace sick employes, even temporarily, unless their absence from work should extend over a sufficiently long time to interfere seriously with the proper conduct of work. For the above reasons, then, the assumption that annually 4 per cent of the working force will have to be hired temporarily or permanently to take the places of sick employes, should liberally reflect actual conditions.

As to the number of people who are annually separated from the service for reasons other than death or prolonged sickness, no reliable figures seem to be available. In fact, the only concrete information bearing on this subject seems to be that given by the United States Civil Service Commission, according to which 8 per cent of all government employes are separated from the service annually for any reason, including that of death and sickness. While in the case of government employes replacement on account of death could again be assumed as 1 per cent, that due to prolonged sickness should be placed lower than 4 per cent and might usually not be more than 3 per cent, on account of the liberality of treatment of government employes and the lack of competitive commercial conditions in the government service. From this it would follow that the annual separation from service among government employes for other reasons than those of death and sickness might be about 4 per cent. Realizing, however, that government employment conditions are usually more favorable to stability of service than those prevailing in commercial industrial establishments, due allowance has been made for this difference by doubling the government estimate and, therefore, allowing 8 per cent for withdrawal by voluntary or involuntary resignation alone.

Effect of Production on Workers

The effect of a normally fluctuating production upon the numerical strength of the working body is difficult to estimate. Opin-

ions differ widely as to how far production can be fairly evenly distributed over the whole year, but the conviction is making itself felt among employers that in most businesses the prevalent erratic curve of productive requirements can be turned into a more even wave line. Several interesting evidences are already available to show the effect of well-directed effort in this field. It must, nevertheless, be admitted that certain fluctuations of production are unavoidable; to a certain extent the seasonal character of a business, and more pertinently, commercial prosperity or depression are determining and uncontrollable factors. A correct assumption is made so much the more difficult also because normal productive fluctuations will but little affect certain classes of employes, such as highly skilled mechanics and clerks, while the great body of operatives or pieceworkers will almost instantaneously feel the effect of these fluctuations. The opinion of many who were consulted seems to center around the assumption that for all employes and for a normally fluctuating production an annual temporary engagement of 8 per cent of the total number of employes would be justified.

Finally, in regard to the efficient conduct of an employment department, it should not be difficult to attain an efficiency of at least 80 per cent in this highly specialized branch of service with but a very limited staff.

Applying the factors above outlined to the problem in hand, it follows that *while theoretically only 6,697 employes should have been employed to allow for an increase of the working force by that number, the additional engagement of 13,843 persons or a total engagement of 20,540*[2] *persons would be justified to cover withdrawals by death, sickness or resignation to allow for productive fluctuations and for practical employment results and to cover the permanent increase in the force.*

[2]Replacement of initial force = 21% of 37274 on 80% basis of hiring efficiency	= 9785
Replacement of replacement = ½ of (21% of 9785 on 80% basis)	= 1285
Permanent increase of force	= 6697
Additional increase for permanent increase on 80% basis	= 1674
Replacement of total increase = ½ of (21% of 6697+1674 on 80% basis)	= 1099
Total	=20540

Yet the fact is that 42,571 employes were engaged where the engagement of only 20,540[3] *persons could readily be defended; 22,031 persons were, therefore, engaged above the apparently necessary requirements.*

It is obvious that a considerable sum of money must have been wasted in unnecessarily engaging so large a force of men and women. The picture herewith presented will become at once more lucid and more appealing if the figures are given monetary values.

Money Waste in Unscientific Hiring

No reliable investigation seems to have been made and published in respect to such financial valuation. Industrial managers were, therefore, interviewed in an effort to obtain from them a concensus of opinion, but they were found to be rather loath to express their views because they had not given heretofore serious thought to the question. While one manager estimated the cost of hiring and breaking in an employe at thirty dollars, the estimates of all others ranged from fifty dollars to $200 per employe. The great difference in these estimates is no doubt due to the diversity of the industries represented by these managers. Most estimates ranged between fifty dollars and $100. One machine tool builder, usually keen in following up matters of this kind when they have been called to his attention, looked into the subject with some care and stated it as his belief that the engagement of almost 1,000 persons in his plant during one year, while the permanent increase in his force amounted to less than fifty, reduced his profits by fully $150,000. His estimate, therefore, is about $150 per employe. The head of a large automobile manufacturing concern stated with equal positiveness that the engagement of a new employe would involve the expenditure of at least $100. This statement is so much the more surprising as it is well known that on account of the high wages paid in the automobile industry it should not be difficult to secure the best type of employes, both as to technical skill and general discipline, and to hold them fairly well. Still another manager who employs a great deal of female labor estimated this cost in some departments to run as high as $200 per employe, largely on account of the costliness of the material which these employes handle.

Unquestionably the skill, experience and intelligence of a

[3] Ibid.

new employe have much bearing upon the amount of money that needs to be expended for his training. Another important consideration is whether the new employe is working on expensive or low-priced machinery or with high or low-priced tools, or on expensive or cheap materials; and to a certain extent whether or not he has been employed before in the same shop and particularly on the same class of work.

With this thought in mind I subdivided the employes under investigation into five groups and studied the requirements of each group as to the quantity and quality of required instruction for new employes and the effect of the work of new employes upon the economical conduct of the business.

Instruction for New Employes

Group A comprises highly skilled mechanics who must have practiced their trade for a number of years in order to attain the required degree of all-around experience and proficiency;

Group B comprises mechanics of lesser skill and experience who can acquire an average degree of proficiency within a year or two;

Group C contains the large number of operatives usually known as pieceworkers, who without any previous skill or experience in the particular work can attain fair efficiency within a few months, somewhat depending on the character of the work;

Group D includes all unskilled productive and expense laborers who can readily be replaced in the course of a few days; and

Group E is composed of the clerical force in the shops and offices.

The distribution of the employes in these five groups was found to be as follows, assuming that 73 per cent in each group were newly hired and 27 per cent were re-hired employes:

Group	Number of employes		Total engagements		
	Initial	Increase	All	New	Re-hired
A	3,355	626	4,661	3,393	1,268
B	4,473	814	6,296	4,583	1,713
C	12,673	2,327	14,440	10,512	3,928
D	13,046	2,369	14,321	10,426	3,895
E	3,727	561	2,853	2,077	776
All	37,274	6,697	42,571	30,991	11,580

The next task is to find how many employes in each group were apparently unnecessarily hired. Approximately correct results will be obtained by employing for each group the same method of calculation as was used for finding the number of unnecessarily engaged persons in the total number of employes. In order to secure more correct figures, allowance would have to be made for the fact that while the same mortality and sickness rate and the same employment efficiency may be considered to hold in all groups, the rates of withdrawals by resignation and discharge and the effect of a normally fluctuating production will vary for each group. On the one hand, skilled employes are more steady and will give less cause for discharge than ordinary pieceworkers or expense laborers; on the other hand, all-around mechanics will be retained under normally fluctuating production, while again, pieceworkers and expense laborers will more or less immediately feel the effect of such fluctuations.

Using the shortcut method rather than entering into an extended mathematical calculation, it will be found that the apparently unnecessarily engaged 22,031 persons divide themselves as follows:

Group	Unnecessary engagements		
	All	New	Re-hired
A	2,781	2,031	750
B	3,818	2,787	1,031
C	7,388	5,393	1,995
D	7,100	5,183	1,917
E	944	689	255
All	22,031	16,083	5,948

The factors which contribute mainly to the cost of hiring and training new employes must now be analyzed. This cost may be considered to result from:

(a) clerical work in connection with the hiring process;
(b) instruction of new employes by foremen and assistants;
(c) increased wear and tear of machinery and tools by new employes;
(d) reduced rate of production during early period of employment; and
(e) increased amount of spoiled work by new employes.

No account is taken here of the reduced profits due to a reduced production, nor of the investment cost of increased equipment on account of the decreased productivity of machines on which new employes are being broken in.

The hiring expense affects all groups of labor to about the same extent. It consists of interviewing applicants, taking their records, making out their engagement cards and other necessary papers, and placing their names on the payroll books; sometimes also advertising and traveling expenses will have to be incurred. Reduced to the cost per individual, an expense of fifty cents for each employe should be a fair estimate.

Instruction Expense

The instruction expense, on the other hand, will vary largely according to the experience and skill of the new employe and the nature of his work. It will be lowest for Group D and highest for Group C employes, for the latter must be instructed most and watched longest. This expense for Group B employes will be nearly as large as that for Group C employes, not because they need as prolonged supervision, but because higher priced foremen will have to give the instruction. Considering the quantity and quality of required instruction, this expense may be assumed to be for each new employe: in Group A, seven dollars and fifty cents; in Group B, fifteen dollars; in Group C, twenty dollars; in Group D, two dollars; and in Group E, seven dollars and fifty cents.

The value of increased wear and tear of machinery and tools by new employes is difficult to estimate. It will be little, if anything, for Groups D and E employes, for whom it may be presumed to be one dollar per employe, while it may reach thousands of dollars for damage to expensive machinery used by Groups A, B and C employes. Any estimate must be a mere guess, but it may be conservative to assign ten dollars for each Groups A, B and C employe.

The loss due to reduced production is entirely dependent upon the value of the article produced and the experience and skill of the employe required for its production. It will, of course, be lowest for Group D employes, for whom it may be assumed to amount to five dollars each. It can be estimated with approximate correctness for other employes by considering their average wages

and the average loss of productivity during their initial period of employment. Figuring overhead charges as 100 per cent of the wages of Groups A and B men, 75 per cent of Groups C and D and 40 per cent of Group E men, this loss may be assumed to amount to twenty dollars for each Group A, eighteen dollars for each Group B, thirty-three dollars for each Group C, five dollars for each Group D and twenty dollars for each Group E employe.

The expense due to spoiled work will similarly vary with the value of the raw material worked upon and the labor expended in such work. It will amount to practically nothing for Groups D and E employes, and may be assumed to be ten dollars for each Group A, fifteen dollars for each Group B, and ten dollars for each Group C employe.

These cost items must be reduced materially when they are applied to re-hired employes. The cost of training old employes will, of course, be smallest when these employes are put back on exactly the same or similar work to that on which they were engaged before they left employment in the same factory. As a matter of fact, many re-hired employes are put on entirely new work, and their training will therefore involve an expenditure which will more or less approximate that needed for the training of entirely new employes. Making, however, a conservative assumption, the cost of hiring and training old employes may be placed at ten dollars for each Group A, twenty dollars for each Group B, thirty-five dollars for each Group C, five dollars for each Group D, and ten dollars for each Group E employe. The respective totals of the various cost items above outlined are shown in the following tabulation:

	New Employes						
Group	Hiring	Instruction	Wear and Tear	Reduced Production	Spoiled Work	Total	Re-Hired Employes
A	$0.50	$7.50	$10.00	$20.00	$10.00	$48.00	$10.00
B	.50	15.00	10.00	18.00	15.00	58.50	20.00
C	.50	20.00	10.00	33.00	10.00	73.50	35.00
D	.50	2.00	1.00	5.00	.....	8.50	5.00
E	.50	7.50	1.00	20.00	.....	29.00	10.00

When these values are multiplied with the number of supposedly unnecessarily engaged new and re-hired employes in each group, the result shows that *the apparently unnecessary engagement of 22,031 employes within one year in the twelve factories under in-*

vestigation involved an economic waste of $831,030. This amount will be considerably greater and may reach a million dollars if the decrease of profits due to a reduced production and the increase of expense on account of an enlarged equipment investment are taken into consideration.

The important question immediately arises: how can this economic waste be avoided in future?

Preventing Waste in Hiring

Five answers present themselves:

First, a thorough study of current employment statistics with a careful analysis of the reasons for the discharge of employes is needed in order to furnish a fact basis of local as well as general conditions on which to predicate future action;

Second, high grade men must be placed in charge of hiring departments and must be given adequate authority;

Third, proper methods must be devised for taking care of new employes, not only in respect to their technical training and work, but also in reference to their personal characteristics;

Fourth, effective systems of apprenticeship for boys and girls and of specialized training courses for adult employes must be maintained; and

Fifth, well-directed efforts should be made so to regulate commercial requirements as to secure a fairly uniform production throughout the year.

It is well known that the explanation for an employe's separation from the service, as given by the foreman, cannot always be relied upon because, when the employe leaves voluntarily he will often give an excuse rather than a reason for his resignation, while in case of his discharge by the foreman the latter's personal bias may sometimes take the place of his good judgment. Special efforts should therefore be made to get at the real cause of an employe's resignation or discharge. Such efforts may reveal, for instance, that the peculiar methods of a foreman readily discourage new employes from continuing in the service, in which case "a word to the wise" may be sufficient to alter the foreman's tactics or other measures may become necessary in order to correct an unsatisfactory condition. On the other hand, it may transpire that certain changes in the character of work or in the conditions

that surround the work must be made to attract and keep satisfactory employes.

In the light of the above statements and figures it must be obvious also that the highest grade of judgment in the hiring and discharging of employes is needed. The employment "clerk" of today will have to be replaced by the employment "superintendent" of tomorrow, not merely by changing the title and salary of the incumbent of the office, but by placing in charge of this important branch of management a man whose character, breadth of view and capacity eminently qualify him for the discharge of these duties. Second in importance to the manager of the plant should be his assistant who is entrusted with the duty of bringing into the plant the men and women who are needed for the proper performance of work, and of keeping them in the employment as contented and efficient employes.

Selecting the Right Men

While it is quite important to select the right men and women for the right places so that a square peg may be chosen for a square hole and a round peg for a round hole, it is far more important properly to take care of these men and women when they enter upon their new work. A good man can be spoiled and discouraged by wrong initial treatment, as an improperly selected man can often be made useful and contented by the right guidance and training. An understanding of human nature, and fairness and firmness in dealing with men are some of the chief requisites of the efficient superintendent of employment. A student of economics applied to industry, he must be imaginative enough to be progressive and yet sufficiently conservative not to break away from old moorings before he has found a clear course ahead. Standing between the employes and their employer, he can, if he is the right man, work to the advantage of both by being fair to both. And if he possesses tact and diplomacy he will never destroy the disciplinary authority of the foreman even though the latter is deprived of the right to discharge an employe beyond terminating at any time the latter's connection with his department. Since the superintendent of employment has brought the employe into the factory, he ought to be the one to discharge him if he should be discharged. Often he may find that the employe's unsatisfactory showing was due to his having

been placed wrongly. How much better to take this square peg out of a round hole and fit him into a vacant square hole than to discharge him and then experiment with another recruit, a supposedly square peg? Sometimes, where all blame cannot be apportioned to the employe, his first offense can be condoned and he can be placed under surroundings which will be more favorable to his useful development. Again, at times the discharge of an employe may not only be justified but such employe ought to be made to feel in no uncertain way the disgrace of his action. Even in this instance, however, a wise superintendent of employment will fire the employe in such a manner that the latter will greatly feel the sore spot without harboring at the same time hateful resentment against his employer. A friendly public opinion of a community is a great asset to an employer and particularly to a corporation; care should therefore be taken that it be not easily disturbed.

Employer's Relation to the Community

The employer can further help to develop a good relationship with his community by offering to some of the boys and girls of his own employes or of other local citizens an opportunity to prepare in his factory for a useful industrial life. It is becoming recognized again, as it was decades ago, that the employer has a peculiar duty to perform toward his employes and himself as well as the industry, by offering to train and by properly training the youth of the land who wish, or by circumstances may be obliged to choose a vocational career for a livelihood. Sometimes by his own action, sometimes in coöperation with educational institutions, but always in sympathetic support of the well-meant efforts of school authorities, he should see to it that the young men and women whom he is training become intelligent, skillful and contented workers and leaders in the constantly growing industrial army. Although to a certain extent all employers take an interest in this problem of providing an adequate supply of properly trained workers, most of them have not yet discovered that it is essentially worth their while to set aside a generous amount of their busy time and to devote appropriate effort and financial support for this work.

Finally, as to the last suggested remedy, that of a fairly evenly distributed production throughout the year, the problem looks somewhat simple although it is fraught with many difficulties that

arise from the fact that, after all, the buying public is the real master of this situation. The employer can, however, influence the public in many ways, by educational propaganda or by the offer of advantageous trade prices, to help him in his effort for a standardization of his products, so that he may be able to manufacture for stock for future need as well as for immediate delivery, and through it to maintain fairly steady work throughout the whole year. He may well share with the public and with his employes the advantages accruing to him from a wholesale production and the resulting steady work for his employes.

Along the five lines of remedy herein suggested may be found the solution of a problem which is beginning to loom large before our eyes and will look larger as international competition grows keener. In presenting the results of my investigation into the waste of hiring and firing employes, I have made no effort to paint a black picture but have merely presented the varied colors of the industrial spectrum. I have pictured what seems to be an average condition throughout the country, indicative of defects in our factory system that challenge immediate attention.

The Spirit of Loyalty

In view of certain legislative and administrative tendencies now affecting American industries it is important also to reflect that constant fluctuation in the working force of an establishment must materially increase the difficulty of maintaining among the employes a spirit of loyalty to the management, *esprit de corps*, and general contentment. Just as quicksand cannot be kneaded in the hands into a solid lump, so also will it be found difficult to take hold of an ever-changing mass of employes and transform it into a homogeneous, intelligent, contented body. Moreover, this condition will tend to nullify, to a large degree, the beneficial effects of many well-intentioned efforts of employers, such as sickness and accident insurance plans, old age pension systems, and other phases of industrial betterment work.

And last, but not least, the problem herewith presented offers an opportunity for constructive work in which employers and employes can readily be brought together for mutual benefit, for no right-thinking man, whatever his position or affiliation, can justly object to any well-directed plan which seeks to give employes

continuous work throughout the year and to enable employers to maintain steady production.

Close analysis of the men and women whom we take into our employ, effective systems under which we train them in our work, fair treatment while they are in our service, and adequate methods to insure their dismissal only for justified cause or their voluntary withdrawal with no ill-feeling toward their employer—these are essential factors in our problem of "hiring and firing" and must be our earnest concern lest we waste money in our businesses and sacrifice friendly relationship with our employes.

METHODS OF REDUCING THE LABOR TURNOVER[1]

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From October, 1912, to October, 1913, the Ford Motor Company hired 54,000 men to keep an average working force of 13,000. This was over 400 per cent labor turnover. From 1913 to October, 1914, this company hired only 7,000 men to keep an average of 17,000 men. Eliminating 4,000 from the comparison, because they were taken on extra to build up the force, the company really hired only 3,000 men to keep the same 13,000. This was only 23 per cent turnover. Of course, nine months of profit-sharing was responsible for the difference, but the fact only goes to show that the turnover of labor can be reduced. The saving to the Ford Motor Company must have been at least $2,040,000, or a return of 24 per cent on the profit-sharing bonus, which was intended as an outright gift. The saving, however, was really more than that, because the retention of the steady labor force resulted in an increase of working efficiency estimated by the company at 44 per cent.

The Ford Motor Company is a special instance, and no other company can be urged to give $10,000,000 to reduce its labor turnover. Others can be urged, however, to seek other means of secur-

[1] Read before Employment Managers' Conference, Minneapolis, January 20, 1916.